

## What Is Claimed Is:

1. An abrasive molding for polishing a material to be polished by using a polishing liquid containing no loose abrasive grain, said molding consisting essentially of inorganic particles having an average particle diameter in the range of  $0.005\ \mu\text{m}$  to  $0.3\ \mu\text{m}$ , and said molding having a relative density in the range of 45% to 90%, provided that pores having a diameter of at least  $0.5\ \mu\text{m}$  are excluded from the molding.

2. The abrasive molding according to claim 1, wherein the polishing liquid is water or an aqueous solution of an alkali metal hydroxide.

3. The abrasive molding according to claim 1, wherein the inorganic particles are finely divided particles of at least one inorganic substance selected from the group consisting of silicon oxide, cerium oxide and zirconium oxide.

4. The abrasive molding according to claim 1, wherein the material to be polished is crystalline silica or silicon.

5. An abrasive molding for polishing a material to be polished by using a polishing liquid containing no loose abrasive grain, said molding consisting essentially of silicon oxide particles having an average particle diameter in the range of  $0.11\ \mu\text{m}$  to  $0.18\ \mu\text{m}$ , and said molding having a relative density in the range of 55% to 84%, provided that pores having a diameter of at least  $0.5\ \mu\text{m}$  are excluded from the molding.

6. An abrasive molding for polishing a material to be polished by using a polishing liquid containing no loose abrasive grain, said molding consisting essentially of cerium oxide particles having an average particle diameter in the range of  $0.10\ \mu\text{m}$  to  $0.20\ \mu\text{m}$ , and said molding having a relative density in the range of 48% to 76%, provided that pores having a diameter of at least  $0.5\ \mu\text{m}$  are excluded from the molding.

7. An abrasive molding for polishing a material to be polished by using a polishing liquid containing no loose abrasive grain, said molding consisting essentially of zirconium oxide

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13. An abrasive disc for polishing a material to be polished by using a polishing liquid containing no loose abrasive grain, said abrasive disc comprising at least one abrasive molding fixed to a supporting auxiliary; said abrasive molding

consisting essentially of cerium oxide particles having an average particle diameter in the range of 0.10  $\mu\text{m}$  to 0.20  $\mu\text{m}$ , and said molding having a relative density in the range of 48% to 76%, provided that pores having a diameter of at least 0.5  $\mu\text{m}$  are excluded from the molding.

14. An abrasive disc for polishing a material to be polished by using a polishing liquid containing no loose abrasive grain, said abrasive disc comprising at least one abrasive molding fixed to a supporting auxiliary; said abrasive molding consisting essentially of zirconium oxide particles having an average particle diameter in the range of 0.14  $\mu\text{m}$  to 0.18  $\mu\text{m}$ , and said molding having a relative density in the range of 47% to 63%, provided that pores having a diameter of at least 0.5  $\mu\text{m}$  are excluded from the molding.

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